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ABSTRACT

Aspects of the relative importance of work were examined in a representative sample of 700 Melbourne year-10 students. Instruments were Taylor's Work Quiz (WQ), the Values Scale (VS) and Salience Inventory (SI) developed for the international Work Importance Study, and Holland's Vocational Preference Inventory (VPI). From the WQ three basic orientations to work in this sample were identified: self-actualizing, instrumental, and necessity. Correlations between the WQ and VS scales showed the self-actualizing orientation was highly correlated to 12 intrinsic values, the instrumental scale was correlated with 17 extrinsic values, and a lack of relationships existed between the necessity orientation and the VS scales. Correlations between the WQ and SI scales showed the self-actualizing orientation had the strongest relationship with the worker role, the instrumental scale correlated positively only with the leisure scales, and no significant relationship existed betwen the SI scales and the necessity scale. No significant relationship existed between the VPI scales and the self-actualizing orientation; the instrumental orientation highly correlated with the enterprising, realistic, and conventional scales; and the necessity scale correlated with the realistic and conventional scales. These relationships supported expectations. Parallels were identified between study results and Maslow's hierarchy of needs. (YLB)

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WORK ORIENTATIONS OF AUSTRALIAN SECONDARY SCHOOL STUDENTS[1]

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Abstract

Aspects of the relative importance of work were examined in a representative sample of 700 Melbourne Year 10 students, who completed Taylor's Work Quiz, the Values Scale and Salience Inventory developed for the international Work Importance Study, and Holland's Vocational Preference Inventory. From the Work Quiz three basic orientations to work in this sample were identified: Self-actualizing, Instrumental, and Necessity. Relationships of scores on these scales to the VS, SI and VPI scale scores supported expectations almost without exception. In the patterns of relationships found between the various orientations, values and interests, a parallel between this study's results and Maslow's postulated hierarchy of needs could be identified.

Work is a central feature of many cultures. Discussions concerning work are not only occupying the interests of professionals from diverse backgrounds (such as psychology, economics, sociology and political science), but are also becoming more common at all levels of society, as indicated by an increased coverage in the popular press. It is not uncommon in countries like Australia to find articles in newspapers and magazines relating to aspects of work going beyond the basic concerns such as wages, strikes and working conditions, to the more 'esoteric' issues such as satisfaction, motivation, and work versus leisure.

With increasing levels of unemployment, and considerable changes to all aspects of work due to advances in technology and computerization, an important shift in the kinds of questions people are asking can be seen. As well as asking 'What is it people want from working?', which is still recognized as an important question, both behavioural scientists and policy makers are now asking 'Do people want to work? How strong is their motivation to work? What and how strong are their alternative objectives?'

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[1] Paper presented at American Educational Research Association Annual Conference, San Francisco, April 1986; a fuller account of this study is given in Shears (1984).

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The first question stresses needs, values and interests, but only considers work in isolation - unrelated to other life interests. The newer questions, however, look at work in the broader context of other life roles, and address the problem of the importance of these roles as ways of meeting needs in contemporary society.

The Australian Context

Since this paper is being presented at what we would call an 'overseas' conference, it is appropriate to provide some information on the Australian work force and education systems. Australia is a modern, industralized country, very rich in natural resources. Our industries have a lot of tariff protection and tend not to be competitive on overseas markets because our labour costs are very high. Hence it is primary products and minerals that tend to get exported, and that we tend to be known for (in addition, of course, to the flora, fauna, criminals and indigenous citizens commonly featured in TV programs).

A four-sector analysis of the workforce was recently provided by Jones (1983), as shown in Table 1. The primary sector (extractive) covers agriculture, fishing, forestry, mining, quarrying and oil extraction. The secondary sector (manufacturing and construction) involves using skills and/or techniques on processed or raw materials to produce finished products. Services not based on the transfer of information are found in the tertiary sector which provides tangible, economic services which are easily quantifiable, and have a precise economic value to the consumer (e.g. transport, storage, buying and selling, energy supply, supply of food and drink, sport and recreation). The quaternary sector provides intangible information services which are difficult to quantify, and involves the processing of symbols and/or symbolic objects (e.g. teaching, research, office work, public service and all forms of communication). The trends revealed in this table are common to all industrialized, technological societies. We suspect that an equivalent table for the USA would not be very different.

We have been somewhat more fortunate than other industrialized countries in our unemployment rates, which remained at under 1% of the work force until the mid-1970s. Currently, the overall rate varies from about 6% to about 8%, but in the 'early school leaver' group it is much higher, particularly for females in rural areas.

Where we have been different from the USA and Canada is in the retention of students beyond Year 10 of secondary school. Until very recently (that

is, the last two or three years), only about 35% of a cohort stayed in the education system to complete Year 12. There are three main kinds of secondary schools in Australia: those run by the State governments, in which about 30% of students stayed to Year 12; those run by the Catholic church, in which just over 40% stayed to Year 12; and those run by independent groups or other churches, in which about 85% stayed to Year 12. In the last three years there has been an improvement in retention rates in all three types of school, dramatically so in the State-run schools, so that the overall retention rate is now well above 50%.

Higher levels of academic and technical qualifications of people leaving education as a consequence of the higher retention rates described have caused significant changes in the nature of the work force. Whether they have also been associated with similar changes in the nature of work itself is debatable. Thus they are almost certainly associated with the increasing problems of 'underemployment' of people with respect to their level of training, which in turn must impinge on people's satisfaction with their jobs and the concepts of the meaning of work in their lives.

The Centrality of Work for Australians

> Work, and its rewards, is of singular, central importance within our culture. It influences our pattern and level of living, our leisure, our relationships, our psychological and mental health, and our view of the world. (Maas, 1979, p.3)
> Work is the single most important activity in the life of the great majority of Australians. (Emery & Phillips, 1976, p.3)

From the earliest days of convict labour, the work role has been a prominent one for Australians. The pioneers who established new communities had to toil long and hard, often in difficult conditions of terrain and climate, merely to survive. From these early days of adversity there developed a strong belief in the right to work for all Australians, and Australia pioneered many reforms in working conditions so that by 1910 the Australian worker was better off than his/her American or European counterpart (Conway, 1976). Even with the changing nature of the workforce and the fact that the opportunity for full employment has disappeared, the belief in this right is still held.

The practice of working hard, however, is not necessarily associated with the belief in the right to work (Bordow, 1977). Although actual research evidence to support this view is scarce, many examples depicting the Australian worker in such a light can be found in novels and popular journalism:

> (Among Australian workers there exists) a reflexive hatred of work itself and any doctrine which preaches that work is a worthy and necessary function. The old puritan work-ethic still persists among the executive classes. Elsewhere the shirk-ethic (. . .) marks the climate of the day. (Conway, 1976, p.24)

A related view of the Australian worker working hard in order to consume hard, rather than having a professional attitude to work, has been proposed by Musgrave (1979).

Some research evidence exists on the work values held by Australians and of their aims in working, but this research is not extensive. A replication in Australia of the O'Toole study Work in America was carried out by Emery and Phillips (1976), however, and some very significant research on what he terms 'work aspect preferences' has been published by Pryor (for example, 1982, 1983). There has also been a number of demographic/sociological surveys examining large samples of youth in the process of transition from school to work or further study. The relevance of these studies to the present research is the finding throughout that work is important for the majority of people. Among the poorly qualified school leavers, minority groups and others responding to these surveys, a commitment to work, a preference for employment rather than unemployment, and a desire for success in educational and occupational activities were expressed.

Although these studies indicate that work is important for the majority of Australians, they do not indicate the degree of importance that work has for individuals. The relationships between people as workers and the other roles they fulfil have not been examined. The values that individuals hold, and the importance of these values within the different roles in which the individuals participate, also need to be considered. It is questions such as these that the international Work Importance Study (WIS), set up in 1979 by Dr Donald Super, set out to investigate in a wide range of countries, including Australia.

The Present Study

The study reported here was motivated by the notion that it may be possible to identify a 'typology' of people according to their orientation to work (where 'work' is defined as work for pay or profit), something akin to Holland's (1985) typology of vocational personalities, and that the typology might be of some use in personal counselling. Further, it was assumed that, should the typology be established, it would be a useful criterion against which to examine the validity of some of the measures being developed for the WIS.

Only two earlier relevant Australian studies were located, one by Sheridan (1981) who constructed a unidimensional 'Orientation to Work' scale and found positive associations between this scale and all scales of Super's Career Development Inventory. The other was by Taylor (1975) whose work has been extended here. Taylor began by attempting to organize the range of occupational choice theories by classifying them according to the chooser's point of view, and found three major types of explanation:

1 Actualization - usually proposed by psychologists with counselling or clinical orientations. People are seen to move into jobs where they can meet their needs, maximize their potential, implement their self-concept and so forth.

2 Calculation - differential psychologists have been inclined towards this viewpoint. Occupational choice is seen to be based on people matching the information they have about job and self.

3 Destiny - usually preferred by sociologists and labour economists. A combination of circumstances and accidents account for the occupations in which people find themselves.

From this classification Taylor identified three hypothetical orientations to work: actualizing, calculating and traditional; each implying a different way of looking at and evaluating work and the part it plays in life. In his study, Taylor attempted to develop an instrument to assess these three orientations, and to examine their relationships to a range of other variables in a sample of about 300 adult males. The instrument, called the Work Quiz, contained 33 items and used a five-point response scale. Three intelligible dimensions were identified by factor analysis ('Responsibly Committed' to, 'Traditionally Comfortable' with, and 'Passively Unconcerned' about work) but about 10 items remained unassigned. Taylor emphasized that work orientations need to be viewed as dimensions along which a person could be placed, rather than all-or-none characteristics. He presented data which led him to conclude that orientations to work were not mere surface characteristics, but had their origins in early family and school experiences, and had correlations with the total pattern of personality.

Sample

Over 700 Year 10 students from 14 schools in metropolitan Melbourne were involved. Most students were about 15 years of age, in their last year of compulsory schooling, and males and females were about equally represented.

The schools were carefully selected to cover a range of socioeconomic areas and school types (government, Catholic, and independent). Within schools, the questionnaires were administered during either English, Human Relations or Social Studies classes, to between one and five class groups per school. Australian schools have a very high retention rate to Year 10, streaming in the above subjects is not common and most students study them, hence it was expected that the students in the study would be roughly representative of their city-dwelling cohort.

Instruments

In addition to Taylor's Work Quiz (WQ), the Values Scale (VS) and Salience Inventory (SI) from the WIS (Super, 1982), and the occupational (RIASEC) scales from Holland's (1978) Vocational Preference Inventory (VPI) were used. The first version of the VS was developed about five years ago by an international team of psychologists who met in Lisbon specifically for that task. The version used in this study contained 140 items grouped in 22 largely a priori scales. Half the items related to work situations, half to 'life-in-general' situations, and the scales reflected mostly familiar concepts as shown in Table 2. Items were all constructed with the stem 'It is now or will in the future be important to me to . . .' followed by a statement expressing the value, and a four-point response scale was used.

The SI is more innovative, and contains three sections focusing respectively on 'participation in', 'commitment to' and 'values satisfaction expected from' the five life roles of student, worker, citizen, home-maker, and leisure-seeker. Four-point response scales were again used, on which respondents rated the appropriateness for themselves of a series of statements pertaining to each role. The role definitions given in Table 3 were included on the questionnaire form itself.

Results

The internal consistency reliability of the VS and SI scales was checked and found to be satisfactory to high (0.7 to over 0.9, with four VS scales between 0.6 and 0.7). The factor structure of the WQ was investigated for the total group and separately by sex. Nine eigen values > 1 occurred in each analysis, but in each case the first two were fairly similar, the third was about half the magnitude of the first two, and there was then another largish gap to the fourth value. The Scree test suggested that a five-factor solution might be the most appropriate. Accordingly, two-, three-, four- and five-factor solutions were computed. The three-factor solution for the total

group was felt to be the most intuitively appropriate and statistically sound, with the factor-based scales yielding internal consistency reliabilities of 0.6 or higher. Further, all items with high enough loadings (specified as 0.3 or higher), loaded in the same way on the same scale for the separate sex groups as for the total group, though a few differences occurred in the small number of unallocated items. The items and their groupings are shown in Table 4.

The three factors were identified as:

I a 'self-actualizing' orientation (strong commitment to work, and desire for high standard of performance)

II an 'instrumental' orientation (work valued not for its own sake but the concrete benefits and support from others that it brings), and

III a 'necessity' orientation (minimum involvement; work is a task that has to be done)

Scores on these three dimensions were then correlated with the VS scores, the participation in and the commitment to various roles scores from the SI, and the VPI RIASEC scores. In assessing the results, a significance level of 0.01 or better was specified, and revised estimates were made to the confidence limits for significance of the correlation coefficients in an attempt to compensate for the effects of clustering in the sample (Ross, 1978).

The correlations between the WQ and VS scales are shown in Table 5. The Self-actualizing orientation, that typifies a person seeking strong involvement and competent performance for both personal and altruistic reasons, was highly correlated to 12 values, such as Aesthetics, Creativity, Altruism, Spiritual Values, Intellectual Stimulation, Achievement and Ability Utilization. The lack of relationship with most of the extrinsic values, such as Associates, Enviornment, Supervisory Relations, Life Style, Economic Rewards and Security, is also consistent with the description of this orientation.

The Instrumental scale was correlated with 17 of the 22 values. As would be expected for this orientation, its correlates included nearly all of the extrinsic values. Those extrinsic values which were not related to the Self-actualizing orientation did correlate significantly with the Instrumental orientation (Associates, Environment, Life Style, Prestige, Risk Taking and Safety, Supervisory Relations, Variety, Economic Rewards and Security). The Instrumental scale was related to more of the intrinsic values than expected e.g. Aesthetics, Creativity, Autonomy and Ability Utilization. The relationship with Achievement is understandable in terms of

the importance that students with this orientation attribute to a high standard of living, rather than the importance of personal satisfaction that typifies those with the Self-actualizing orientation.

The lack of relationships between the Necessity orientation and the VS scales is consistent with the feeling of indifference which characterizes students with this orientation. Only two correlations were significant. A negative attitude towards achievement would be expected to be associated with this orientation. The positive relationship with Life Style, which is the preferred way of living, could be explained in terms of the importance attributed to home, family and friends and the need for this aspect of life style to be preserved, rather than work aspects.

The correlations between the WQ and SI scales are shown in Table 6. The Self-actualizing scale of the WQ was significantly correlated with four of the roles (Study, Work, Community, and Home) on all the sections of the SI (Participation, Commitment and Values Expectation) as well as with the combination of Commitment and Participation (Involvement). For this orientation, which typifies a person who has a strong involvement in work for personal and altruistic reasons, the strongest relationship was with the worker role for all sections of the SI. The correlation with the Community role was the weakest of the four significant correlations, and no significant relationship was found between this scale and the Leisure role. Thus people of this orientation are heavily involved in non-recreational roles.

In contrast to the results for the Self-actualizing orientation, the Instrumental scale correlated positively only with the Leisure scales of the SI, a result which is in keeping with the description of this orientation where extrinsic rewards are sought from work to maintain a comfortable life style. Work is not important in itself, but its value is in the way of life it produces and the outside interests which it allows.

No significant relationship was found between the salience of the life roles on any of the inventory subscales and the Necessity scale. The WQ considers only work orientations and respondents endorsing this scale may possibly be motivated and enthusiastic in other aspects of their lives. The lack of relationship with any life role, however, suggests that people having this orientation do not view any of the life roles as important.

Finally, the WQ dimensions were examined in relation to the RIASEC scales from the VPI, and the resulting correlation coefficients are shown in Table 7. Surprisingly, there were no significant relationships between the VPI scales and the Self-actualizing orientation. Although the correlations were highest between this orientation and the Intellectual, Artistic and

Social scales, as would be expected from Holland's descriptions of the characteristics of his types (1985, p.31), these relationships were not significant.

For the Instrumental orientation, where the extrinsic rewards and gains that can be made from work are important, there was a high correlation with the Enterprising scale, which describes a person who is ambitious, domineering, pleasure-seeking, impulsive and self-confident (Holland, 1985, p.22). Positive associations also existed between the Instrumental orientation and the Realistic and Conventional scales. Although some of the attributes of the Realistic, Conventional and Enterprising types are conflicting, they are adjacent categories in Holland's hexagonal model, indicating that they are closely related. For the Realistic type, such descriptors as materialistic, persistent and practical, fit with the Instrumental orientation, and for the Conventional type the descriptors such as persistent, practical and efficient are consistent with this orientation. Although not significant, there was a low negative correlation between this orientation and the Social scale. This type has a very altruistic flavour, which is definitely not found in the Instrumental orientation, and describes a person who is friendly, generous, helpful, kind, and tactful. Thus the combination of Realistic, Enterprising and Conventional characteristics is consistent with the description of the Instrumental orientation.

The Necessity scale also correlated with the Realistic and Conventional scales, but not with the Enterprising or other scales, which would be expected on the basis of the generally unmotivated view of work apparently associated with this orientation. The Conventional type is described as conforming, careful, conservative, inhibited, obedient, orderly and unimaginative, which are characteristics one would expect from someone of the Necessity orientation. Such characteristics as conforming, humble, practical, stable and shy describe the Realistic type, which is also consistent with the Necessity orientation.

An Interesting Parallel

While considering the three WQ scales, the authors were reminded of Maslow's hierarchy of needs (Maslow, 1954; 1968). In Maslow's hierarchy, physiological needs, i.e. the needs which must be fulfilled for physical survivial, such as food, shelter, sleep, sex and oxygen, are at the lowest level. Next are the safety and security needs, which relate to the desire for some order and stability in one's life. Above these are the 'belongingness' and love needs, which involve the desire for affectionate

relationships with people, and a feeling of belonging in a group. At the next level, esteem needs include two categories: (a) self-respect and (b) esteem from others. The identification of the psychological need for growth, development and utilization of potential is what Maslow calls self-actualization. The desires to know and to understand and to fulfil aesthetic needs are also part of these higher order needs.

People for whom the Necessity orientation is predominant appear to desire satisfaction of the basic needs, both physiological and safety and security needs, and the love and 'belongingness' needs in terms of their relationships with family and friends. For the Instrumental orientation, the basic needs are fulfilled, and the most important desire for people having this orientation is for the esteem needs; both self-esteem in terms of confidence, competency, mastery, achievement and independence, and the esteem of others in terms of prestige, recognition, status and reputation. The highest order needs are those which a person having a self-actualizing orientation desires to fulfil: knowledge and understanding, aesthetic needs and other aspects of self-actualization.

Some confirmation of the parallel between the WQ scales and Maslow's hierarchy can be found in the relationships between orientations to work and work values. The correlations between the Self-actualizing orientation and values such as Aesthetics, Altruism, Autonomy, Creativity, Intellectual Stimulation, Responsibility and Spiritual Values, are consistent with the notion of the desire for fulfilment of higher order growth needs. Most of the relationships between the Instrumental orientation and values are consistent with the desire to fulfil esteem needs i.e. Achievement, Advancement, Authority, Economic Rewards and Security, Life Style, Prestige and Supervisory Relations. There are, however, some anomalies here, where relationships were found between this orientation and some of the higher order needs i.e. Aesthetics, Creativity and Variety. As basic needs were not well represented in the VS, the lack of relationships between the Necessity orientation and the values is understandable. The only positive relationship found, between Life Style and this orientation, can be linked to the 'belongingness' need, in terms of desire for relationships with friends and family.

Significance of the Study

Understanding of the orientations to work identified by the Work Quiz has been enhanced by the expected and consistent relationships found between these dimensions and the constructs represented in the Values Scale, Salience

Inventory and the well-known Vocational Preference Inventory. The examination of work orientations could well be of use in organizational psychology (as maintained by Goldthorpe et al., 1968). Instruments such as those used in this study could be of particular value in counselling situations where people, especially students, need or wish to learn more about themselves in relation to other life roles as well as to work, and to appreciate how it may be possible to satisfy their values in a variety of ways.

References

Bordow, A. (Ed.). The Worker in Australia. St Lucia, Qld: University of Queensland Press, 1977.

Conway, R. Is work a four-letter word? The Bulletin. Sydney: Australian Consolidated Press, 31 July 1976, 24-27.

Emery, F.E., and Phillips, C. Living at Work. Canberra: Australian Government Printing Service, 1976.

Goldthorpe, J.H., Lockwood, D., Bechhofer, F., and Platt, J. The Affluent Worker: Individual Attitudes and Behaviour. London: Cambridge University Press, 1968.

Holland, J.L. Vocational Preference Inventory: Manual (Seventh revision). Palo Alto, Calif.: Consulting Psychologists Press, 1978.

Holland, J.L. Making Vocational Choices: A Theory of Vocational Personalities & Work Environments. Englewood Cliffs, NJ: Prentice-Hall, 1985.

Jones, B. Sleepers Wake! Technology and the Future of Work. Melbourne: Oxford University Press, 1983.

Maas, F. Unemployment is not working: The importance and meaning of work. Paper presented at the Australian College of Education Annual Conference, Perth, 1979.

Maslow, A.H. Motivation and Personality. New York: Harper and Row, 1954.

Maslow, A.H. Toward a Psychology of Being (2nd ed.). New York: Van Nostrand, 1968.

Musgrave, P.W. Contemporary schooling, competence, and commitment to work. Paper presented at the Australian College of Education Annual Conference, Perth, 1979.

Pryor, R.G. Values, needs, work ethics and orientations to work: Toward a conceptual and empirical intergration. Journal of Vocational Behavior, 1982, 20, 40-52.

Pryor, R.G. The Work Aspect Preference Scale Manual. Hawthorn, Vic.: Australian Council for Educational Research, 1983.

Ross, K.N. Sample design for educational survey research. Evaluation in Education: International Progress, 1978, 2, 105-195.

Shears, M.J. Work orientations of adolescents within the framework of the Work Important Study. Unpublished MA thesis, University of Melbourne, 1984.

Sheridan, B.E. Career development in adolescents: Its relationship to orientation to work and locus of control. Unpublished PhD thesis, University of Western Australia, 1981.

Super, D.E. The relative importance of work: Models and measures for meaningful data. The Counseling Psychologist, 1982, 10, 95-103.

Taylor, K.F. Orientations to work. Unpublished PhD thesis, University of Melbourne, 1975.

Table 1

Australian Labour Force Classified by Occupation, 1891-1981[a]
(Four sector analysis, in percentages[b])

Sector	1891	1947	1961	1971	1981
Primary	33.3	17.2	12.2	9.1	7.0
Secondary	24.3	31.9	33.5	30.7	23.5
Tertiary	29.0	28.1	29.8	30.5	42.6
Quaternary	13.3	22.7	24.5	29.7	26.9

Notes: [a] Compiled at request by the Statistics Group of the Legislative Research Service from censuses of the Commonwealth of Australia. Source Jones (1983).

[b] Jones' (1983) absolute numbers have been converted to percentages for purposes of clarity.

For Table 2 -- see over

Table 3

Roles and Definitions Provided in Salience Inventory

Role activity	Definition
Studying:	taking courses, going to school, college or university (day or night classes, lectures or laboratory work); doing assignments or homework exercises, studying in a library or at home; also independent studying, formally or informally.
Working:	for pay or for profit, on a job or for yourself.
Community Service:	activities with community organizations such as recreational groups, Scouts, Red Cross, social service agencies, community associations, political parties, etc.
Home and Family:	taking care of your room, flat or house; preparing or cleaning up after meals; shopping; caring for dependants such as children or elderly relatives.
Leisure Activities:	playing sports; watching television; pursuing hobbies; going to films, plays or concerts; relaxing or loafing; being with your family or friends doing nothing in particular.

Table 2

Values Scales and Descriptions

Value	Description
Ability Utilization	Freedom to use and develop one's talents and skills
Achievement	Doing something well
Advancement	Upward mobility in terms of progressing in one's career
Aesthetics	Adding to and enjoying the beauty of processes, products, surroundings
Altruism	Helping others and being concerned for their welfare
Associates	Valuing pleasant, friendly contact with one's associates
Authority	Influence over others
Autonomy	Independence of action within one's sphere
Creativity	Developing or making something original
Economic Rewards	Valuing personal possessions and property made possible by income
Economic Security	Stability of income for a desired standard of living
Environment	Physical aspects of one's surroundings
Intellectual Stimulation	Opportunity to learn and think independently
Life Style	Freedom to live as one wishes
Participation in Decision Making	Taking part in making decisions for a group
Physical Activity	Opportunity for physical rather than mental activities
Prestige	Desire for status which arouses respect
Responsibility	Accountability for the consequences of one's actions
Risk Taking	Desire for the excitement of taking risks
Spiritual Values	Communing with an entity greater than oneself
Supervisory Relations	Valuing pleasant relations with those in supervisory roles
Variety	Desire for change and diversity in what one does

Table 4

Allocation of Work Quiz Items (Abbreviated) to Scales[a]

Self-actualizing	Instrumental	Necessity	Not allocated
19 Want challenging job.	5 Pay allows for high standard of living.	12 My job about as good as any other.	2 Work in same line as others in family.
17 Job gets best out of me.	26 Job leaves plenty of leisure time.	7 Don't mind kind of work if keeps me going.	16 Wouldn't work if didn't have to.
13 Don't mind giving up own time.	1 Important everyone gets promotion.	24 Pleasant surroundings, friendly people.	18 Continue things I enjoyed when young.
21 Personally involved in my work.	6 Work expected to be my major life satisfaction.	28 Wouldn't accept job away from home.	20 If interesting don't mind less money.
3 Job valuable to me and society.	4 Prefer well-established, respected organization.	27 Would hate to be in charge.	
9 Uneasy if could have done better.	11 Pensions, benefits, etc. attractive.	15 Best to get along w'out thinking too much re work.	
23 Want employer who encourages initiative.	33 Prefer to be my own boss.	8 Never have to flog yourself.	
31 Real perfectionist in my job.	32 Job which other people respect.	22 Don't have to think about job after hours.	
29 Want a lot of responsibility in job.	14 Job where you can relax sometimes.	30 Choose job on parents' advice.	
25 Known for long time what work I want.		10 Not much 'say' in choice of job.	

[a] Items shown in decreasing order of factor loadings.

Table 5

Correlations[a] between WQ Scales and VS Scales

Value scales	Classification[b]	Work quiz scales: Self-actualizing	Instrumental	Necessity
Ability Utilization	I	25**	23**	-04
Achievement	I	30**	23**	-13*
Advancement	E	23**	35**	0
Aesthetics	I	20**	18**	10
Altruism	I	30**	-10	04
Associates	E	06	13*	09
Authority	E	20**	31**	-04
Autonomy	I	17**	23**	-01
Creativity	I	26**	24**	02
Economic Rewards	E	-03	52**	11
Economic Security	E	11	27**	06
Environment	E	10	29**	10
Intellectual Stimulation	I	35**	12	-09
Life Style	E	03	24**	14*
Participation in Decision Making	I	19**	12	-07
Physical Activity	I	13*	26**	10
Prestige	E	11	34**	11
Responsibility	I	33**	07	-02
Risk Taking and Safety	E	07	15*	07
Spiritual Values	I	28**	09	11
Supervisory Relations	E	10	17**	03
Variety	E	09	22**	01

Notes: [a] Adjusted for design effect, with decimal points omitted.

[b] I = Intrinsic, E = Extrinsic.

** Significant at the .001 level.

* Significant at the .01 level.

Table 6

Correlations[a] between Salience Inventory and Work Quiz Scales

Salience inventory scales	Work quiz scales		
	Self-actualizing	Instrumental	Necessity
Participation			
Study	22**	07	-02
Work	26**	11	01
Community	14*	-07	03
Home	24**	01	07
Leisure	11	19**	-05
Commitment			
Study	25**	07	-03
Work	32**	08	-04
Community	20**	-10	-01
Home	26**	03	05
Leisure	10	26**	02
Role values			
Study	23**	09	07
Work	30**	05	03
Community	17**	-03	09
Home	26**	06	09
Leisure	13	22**	07
Involvement			
Study	23**	07	-03
Work	32**	10	-02
Community	19**	-09	01
Home	29**	03	06
Leisure	11	23**	-02

Notes: [a] Adjusted for design effect, with decimal points omitted.

** Significant at the .001 level.

* Significant at the .01 level.

Table 7

Correlations[a] between Work Quiz Scales and Vocational Preference Inventory Scales

Vocational Preference Inventory scales	Work Quiz scales		
	Self-actualising	Instrumental	Necessity
Realistic	-01	21**	24**
Intellectual	11	11	-01
Artistic	10	04	03
Social	12	-06	00
Enterprising	03	21**	12
Conventional	02	19**	21**

Notes: [a] Adjusted for design effect with decimal points omitted.

** Significant at .001 level.